Innovation Success
The Overlooked Role of the Retailer

Lien Lamey (KU Leuven)
Barbara Deleersnyder (Tilburg University)
Jan-Benedict Steenkamp (Univ. of North Carolina at Chapel Hill)
Marnik Dekimpe (Tilburg University & KU Leuven)

AiMark
The marketing knowledge innovators

MSI MARKETING SCIENCE INSTITUTE

Innovation Success

Manufacturer

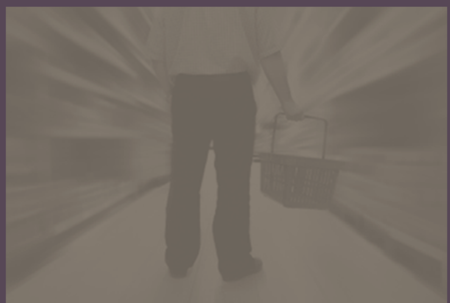
Consumer

Innovation Success

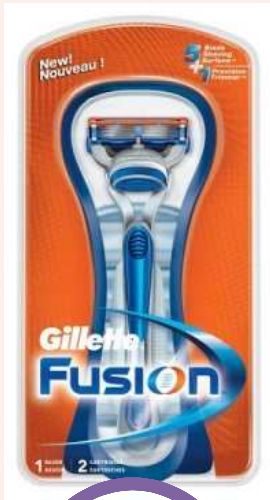
Manufacturer

Retailer

Consumer



Why Important?

Retailer				
Tesco	6.35%[a]	6.88%	7.19%	5.85%
Sainsbury's	6.84%	9.32%	10.67%	7.51%
Asda	4.97%	5.00%	.	9.07%
Iceland	2.11%	.	.	0.95%

[a]6.35% = (volume) share innovation in category at retailer in 1st year after adoption

- Not all innovations get access to all retailers
- Performance of innovation differs between retailers

Why these Differences?

- Retailer's shopper marketing drivers associated with the innovation

- Retailer category drivers

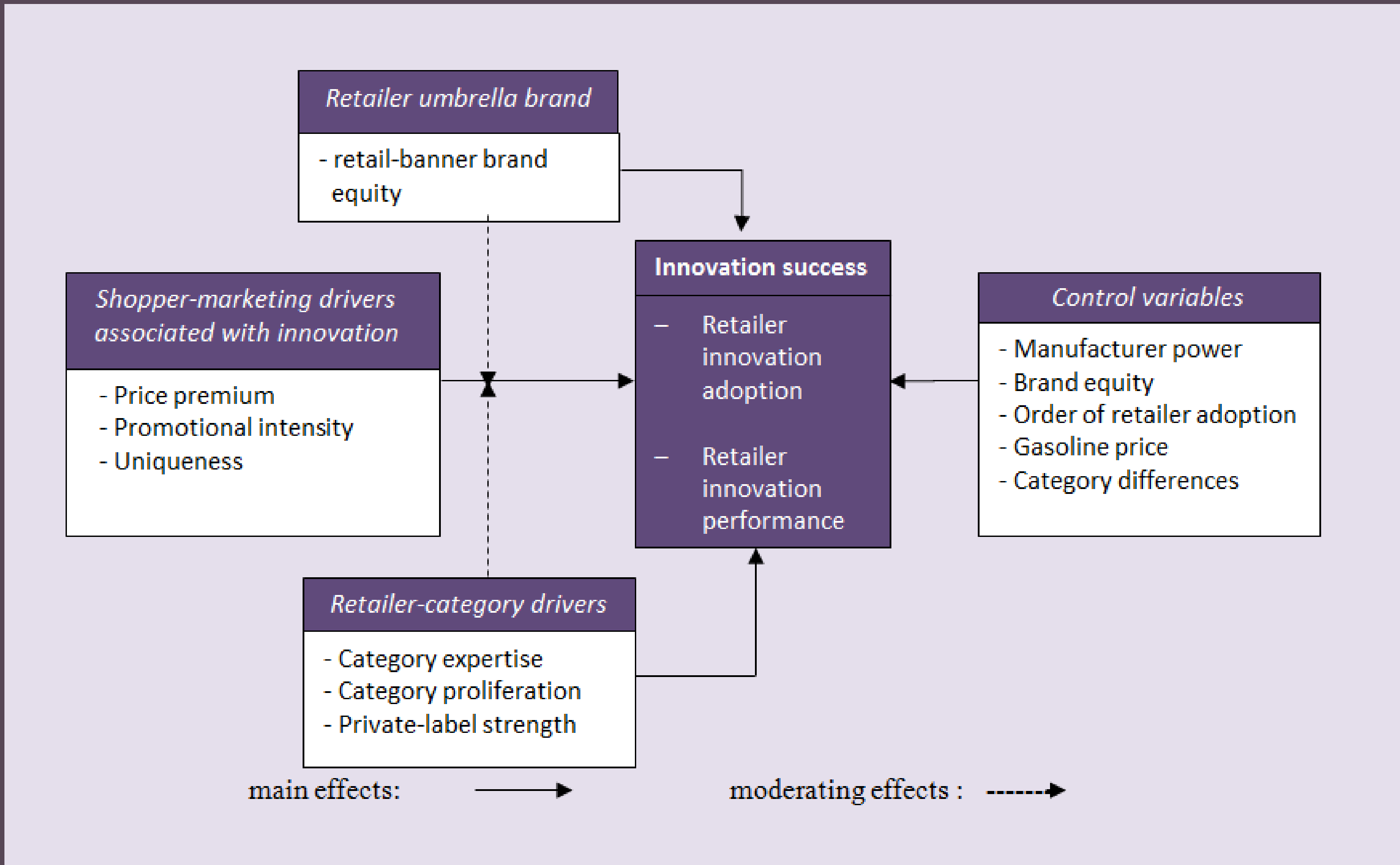
- General retailer driver

Innovation Succes at the Retailer

- Retailer Innovation Adoption

- Retailer Innovation Performance if adopted

Conceptual Framework



Contingency effects

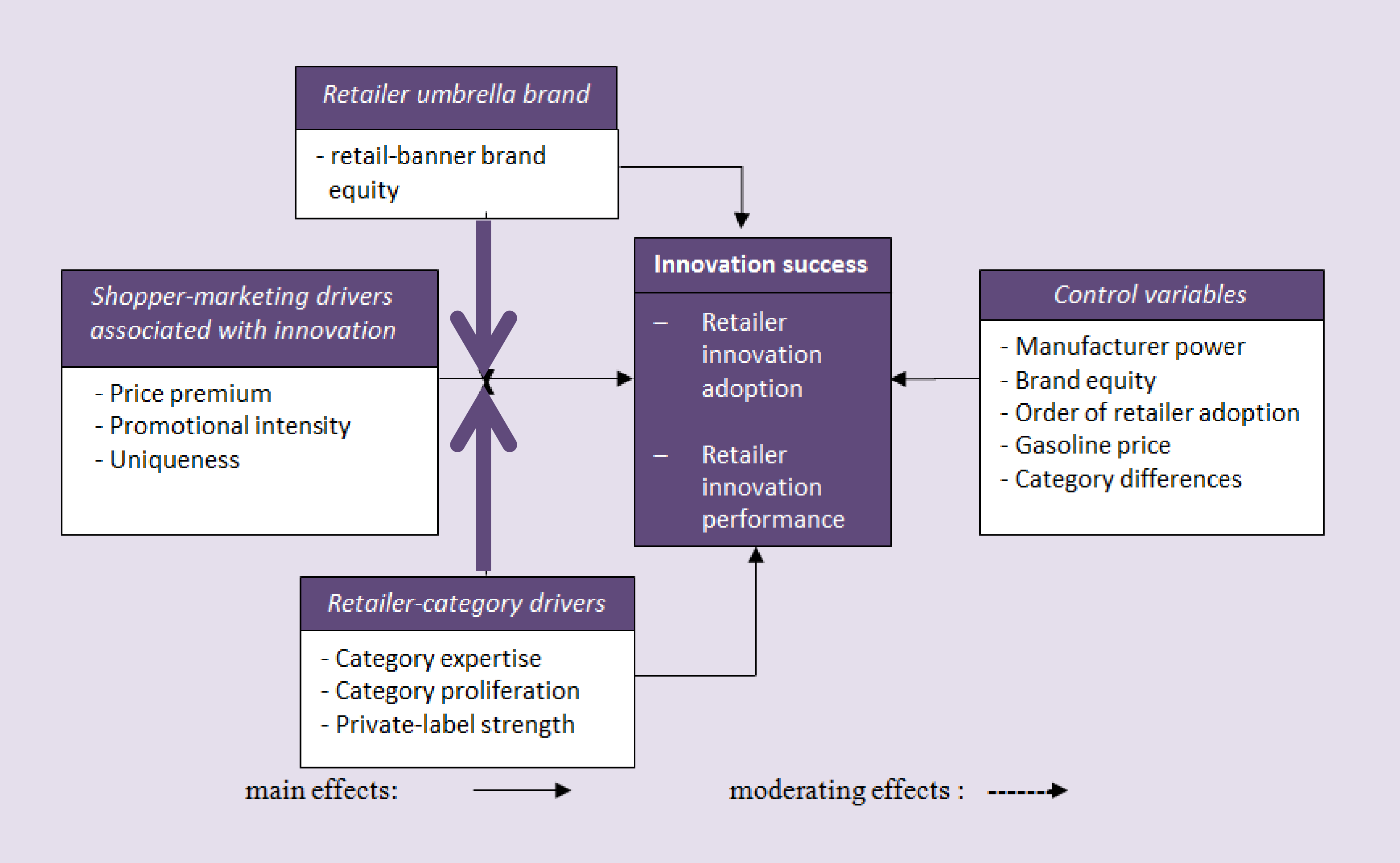
Effectiveness of marketing activities vary across contexts (Steenkamp & Gielens 2003; van Heerde et al. 2013)

Here, retail context

- Category characteristics within the retailer

- General retailer characteristics

Conceptual Framework



U.K.

Top 13 retailers covering 80% of the U.K. market

Innovations

- 105 major NB innovations
- Period: mid 2005 – mid 2008
- Covering 21 categories

Data

– **Scanner panel data (Kantar)**

- mid 2004 – mid 2010
- +15,000 households

retailer adoption, innovation performance & various drivers

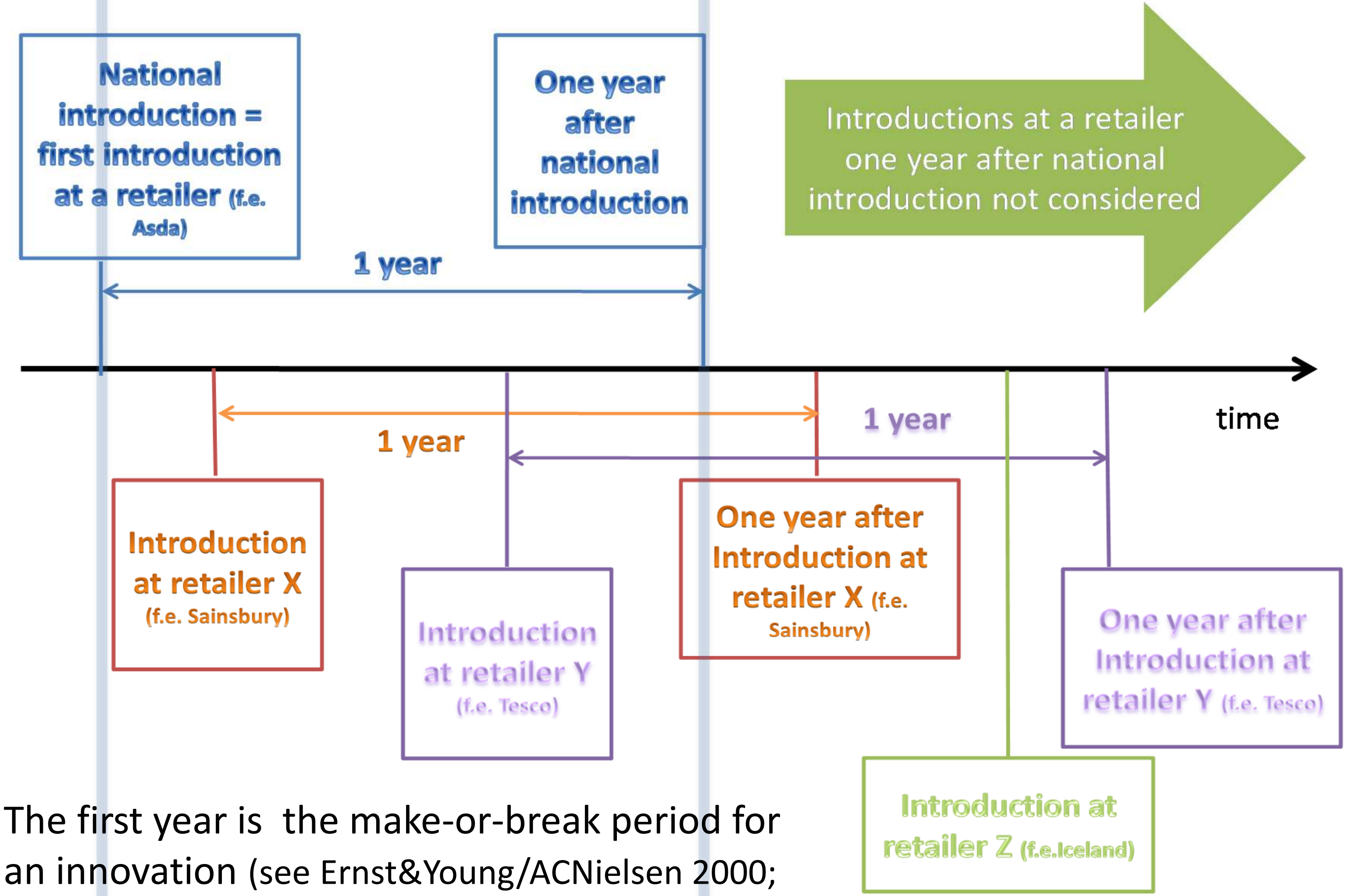
– **Consumer survey data**

brand equity & retail-banner brand equity

– **Secondary data**

gasoline prices

Retailer adoption



The first year is the make-or-break period for an innovation (see Ernst&Young/ACNielsen 2000; Gielens & Steenkamp 2007; ter Braak et al. 2014)

Innovation Performance if Adopted

= Volume market share of the innovation in the category at the retailer one year after introduction at the retailer

➜ DV = ln(market share/1-market share)

Method

Heckman selection model (1979)

$$\begin{bmatrix} ACCEPT_{ir} \\ SHARE^{*}_{ir} \end{bmatrix} = \underbrace{\begin{bmatrix} \gamma_{11} & \gamma_{12} & \gamma_{13} \\ \gamma_{21} & \gamma_{22} & \gamma_{23} \end{bmatrix} . \begin{bmatrix} \ln(PRICE_{ir}) \\ \ln(PROMO_{ir}) \\ \ln(UNIQ_{ir}) \end{bmatrix}}_{\text{Shopper-marketing drivers}} + \underbrace{\begin{bmatrix} \gamma_{14} & \gamma_{15} & \gamma_{16} \\ \gamma_{24} & \gamma_{25} & \gamma_{26} \end{bmatrix} . \begin{bmatrix} \ln(CDI_{ir}) \\ \ln(PROLIF_{ir}) \\ \ln(PLMS_{ir}) \end{bmatrix}}_{\text{Retail-category drivers}} + \underbrace{\begin{bmatrix} \gamma_{17} \\ \gamma_{27} \end{bmatrix} . [\ln(RBBE_{r})]}_{\text{Retailer-banner brand equity}}$$

$$+ \underbrace{\Delta \boldsymbol{X}}_{\text{Control variables}} + \underbrace{B\boldsymbol{Z}}_{\text{Inter-actions}} + \begin{bmatrix} \varepsilon_{1ir} \\ \varepsilon_{2ir} \end{bmatrix},$$

$$\text{with } \Delta \boldsymbol{X} = \begin{bmatrix} \delta_{10} & \delta_{11} & \delta_{12} & \delta_{13} & \delta_{14} \\ \delta_{20} & 0 & \delta_{22} & \delta_{23} & \delta_{24} \end{bmatrix} . \begin{bmatrix} 1 \\ \ln(MPOW_{ir}) \\ \ln(BE_{i}) \\ \ln(ORDER_{ir}) \\ \ln(PRGAS_{ir}) \end{bmatrix} + \begin{bmatrix} \sum_{c=1}^{3} \delta^{c}_{15} . CAT_{i} \\ \sum_{c=1}^{3} \delta^{c}_{25} . CAT_{i} \end{bmatrix}$$

with i and r two indices for innovations (i=1…105) and retailers (r=1…13)

<u>Note</u>: estimated simultaneously using cluster-robust standard errors & correction for endogeneity

Drivers of Innovation Success at Retailers

	Retailer innovation adoption			Retailer innovation performance		
Shopper-marketing variables						
Price premium	.484	***	(5.71)	.002		(.05)
Promotion intensity	8.835	***	(5.64)	1.117	***	(2.84)
Uniqueness	-.519	*	(-1.75)	.311	***	(2.90)
Retailer-category drivers						
Category expertise	.105		(.97)	.148		(1.06)
** Uniqueness*	.452		(1.13)	-.841		(-.83)
Category proliferation	.581	***	(5.91)	.334	***	(3.31)
** Price premium*	.124		(1.43)			
** Promotion intensity*				-.308		(-.88)
**Uniqueness*	.911	***	(5.76)	.334	*	(1.83)
Private-label strength	1.340	**	(2.46)	-2.677	***	(-6.70)
** Price premium*	-1.265	***	(-4.88)	-.883	**	(-1.99)
** Promotion intensity*	14.551	**	(2.10)	6.333	***	(2.72)
Retailer umbrella brand						
Retail-banner brand equity	2.613	***	(3.75)	-.527		(-1.00)
** Price premium*	3.519	***	(2.62)	.867	***	(3.07)
** Promotion intensity*	-51.863	***	(-4.42)	-11.306	***	(-3.14)
** Uniqueness*	-8.358	***	(-3.20)	2.267	*	(1.81)
Control variables						
Manufacturer power	1.823	***	(7.20)			
Brand equity	3.516	***	(4.86)	2.055	***	(4.72)
Order of retailer adoption	1.199	***	(3.81)	-.411	***	(-7.95)
Gasoline price	-16.680	***	(-9.83)	-1.769	***	(-4.46)
Food	-.700	***	(-4.54)	-.381	***	(-3.84)
Personal care	.431	***	(3.64)	.602	***	(4.60)
Household care	.597	***	(3.17)	.522	***	(8.31)
Intercept	.842	***	(9.63)	-3.228	***	(-37.58)
Selection parameter (ρ)			-.247**			
Log-likelihood			-1,516.26			
N	1,363			907		

t-values in parentheses; *** p < .01, ** p < .05, * p < .10 (two-sided).

Shopper marketing variables

	Retailer innovation adoption			Retailer innovation performance		
Shopper-marketing variables						
Price premium	.484	***	(5.71)	.002		(.05)
Promotion intensity	8.835	***	(5.64)	1.117	***	(2.84)
Uniqueness	-.519	*	(-1.75)	.311	***	(2.90)

Drivers of Innovation Success at Retailers

	Retailer innovation adoption			Retailer innovation performance		
Shopper-marketing variables						
Price premium	.484	***	(5.71)	.002		(.05)
Promotion intensity	8.835	***	(5.64)	1.117	***	(2.84)
Uniqueness	-.519	*	(-1.75)	.311	***	(2.90)
Retailer-category drivers						
Category expertise	.105		(.97)	.148		(1.06)
** Uniqueness*	.452		(1.13)	-.841		(-.83)
Category proliferation	.581	***	(5.91)	.334	***	(3.31)
** Price premium*	.124		(1.43)			
** Promotion intensity*				-.308		(-.88)
**Uniqueness*	.911	***	(5.76)	.334	*	(1.83)
Private-label strength	1.340	**	(2.46)	-2.677	***	(-6.70)
** Price premium*	-1.265	***	(-4.88)	-.883	**	(-1.99)
** Promotion intensity*	14.551	**	(2.10)	6.333	***	(2.72)
Retailer umbrella brand						
Retail-banner brand equity	2.613	***	(3.75)	-.527		(-1.00)
** Price premium*	3.519	***	(2.62)	.867	***	(3.07)
** Promotion intensity*	-51.863	***	(-4.42)	-11.306	***	(-3.14)
** Uniqueness*	-8.358	***	(-3.20)	2.267	*	(1.81)
Control variables						
Manufacturer power	1.823	***	(7.20)			
Brand equity	3.516	***	(4.86)	2.055	***	(4.72)
Order of retailer adoption	1.199	***	(3.81)	-.411	***	(-7.95)
Gasoline price	-16.680	***	(-9.83)	-1.769	***	(-4.46)
Food	-.700	***	(-4.54)	-.381	***	(-3.84)
Personal care	.431	***	(3.64)	.602	***	(4.60)
Household care	.597	***	(3.17)	.522	***	(8.31)
Intercept	.842	***	(9.63)	-3.228	***	(-37.58)
Selection parameter (ρ)			-.247**			
Log-likelihood			-1,516.26			
N	1,363			907		

t-values in parentheses; *** p < .01, ** p < .05, * p < .10 (two-sided).

Retail-context variables

	Retailer innovation adoption			Retailer innovation performance		
Retailer-category drivers						
Category expertise	.105		(.97)	.148		(1.06)
Category proliferation	.581	***	(5.91)	.334	***	(3.31)
Private-label strength	1.340	**	(2.46)	-2.677	***	(-6.70)
Retailer umbrella brand						
Retail-banner brand equity	2.613	***	(3.75)	-.527		(-1.00)

Shopper marketing variables

*

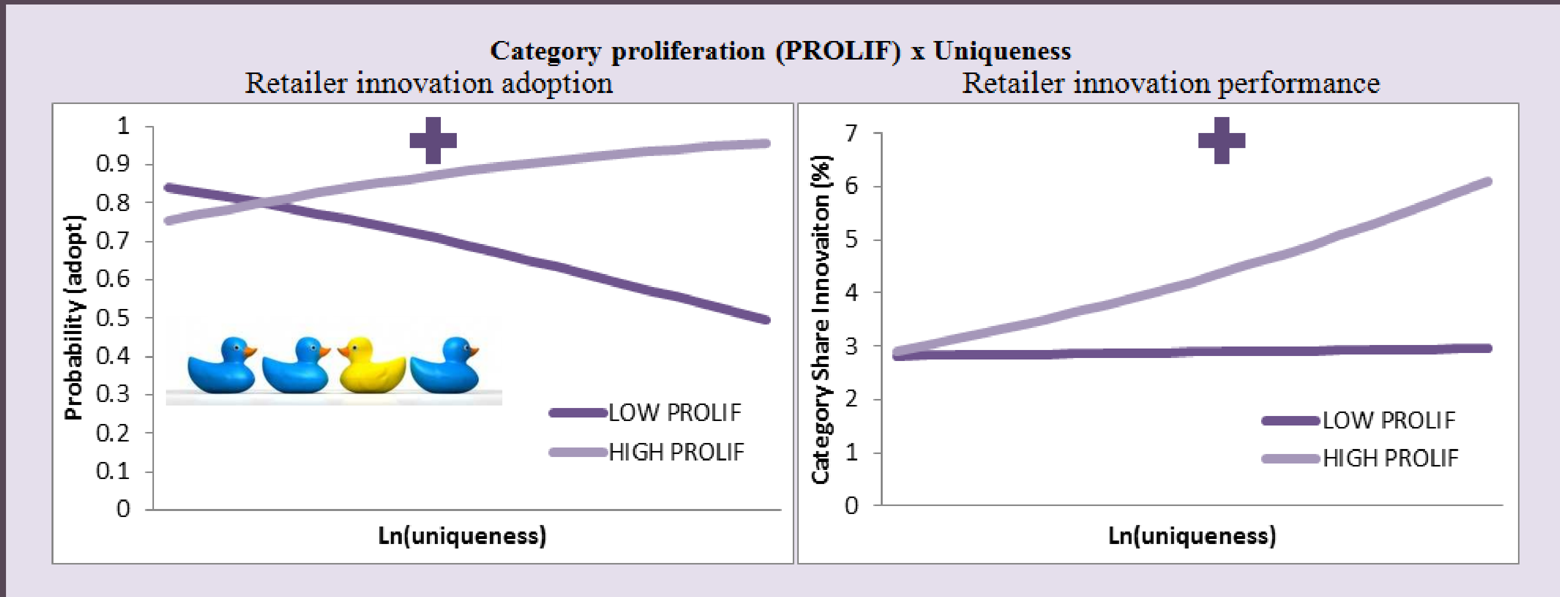
Retail-context variables

Drivers of Innovation Success at Retailers

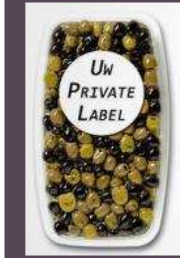
	Retailer innovation adoption			Retailer innovation performance		
Shopper-marketing variables						
Price premium	.484	***	(5.71)	.002		(.05)
Promotion intensity	8.835	***	(5.64)	1.117	***	(2.84)
Uniqueness	-.519	*	(-1.75)	.311	***	(2.90)
Retailer-category drivers						
Category expertise	.105		(.97)	.148		(1.06)
** Uniqueness*	.452		(1.13)	-.841		(-.83)
Category proliferation	.581	***	(5.91)	.334	***	(3.31)
** Price premium*	.124		(1.43)			
** Promotion intensity*				-.308		(-.88)
**Uniqueness*	.911	***	(5.76)	.334	*	(1.83)
Private-label strength	1.340	**	(2.46)	-2.677	***	(-6.70)
** Price premium*	-1.265	***	(-4.88)	-.883	**	(-1.99)
** Promotion intensity*	14.551	**	(2.10)	6.333	***	(2.72)
Retailer umbrella brand						
Retail-banner brand equity	2.613	***	(3.75)	-.527		(-1.00)
** Price premium*	3.519	***	(2.62)	.867	***	(3.07)
** Promotion intensity*	-51.863	***	(-4.42)	-11.306	***	(-3.14)
** Uniqueness*	-8.358	***	(-3.20)	2.267	*	(1.81)
Control variables						
Manufacturer power	1.823	***	(7.20)			
Brand equity	3.516	***	(4.86)	2.055	***	(4.72)
Order of retailer adoption	1.199	***	(3.81)	-.411	***	(-7.95)
Gasoline price	-16.680	***	(-9.83)	-1.769	***	(-4.46)
Food	-.700	***	(-4.54)	-.381	***	(-3.84)
Personal care	.431	***	(3.64)	.602	***	(4.60)
Household care	.597	***	(3.17)	.522	***	(8.31)
Intercept	.842	***	(9.63)	-3.228	***	(-37.58)
Selection parameter (ρ)			-.247**			
Log-likelihood			-1,516.26			
N	1,363			907		

t-values in parentheses; *** p < .01, ** p < .05, * p < .10 (two-sided).

Retail context: Category Proliferation



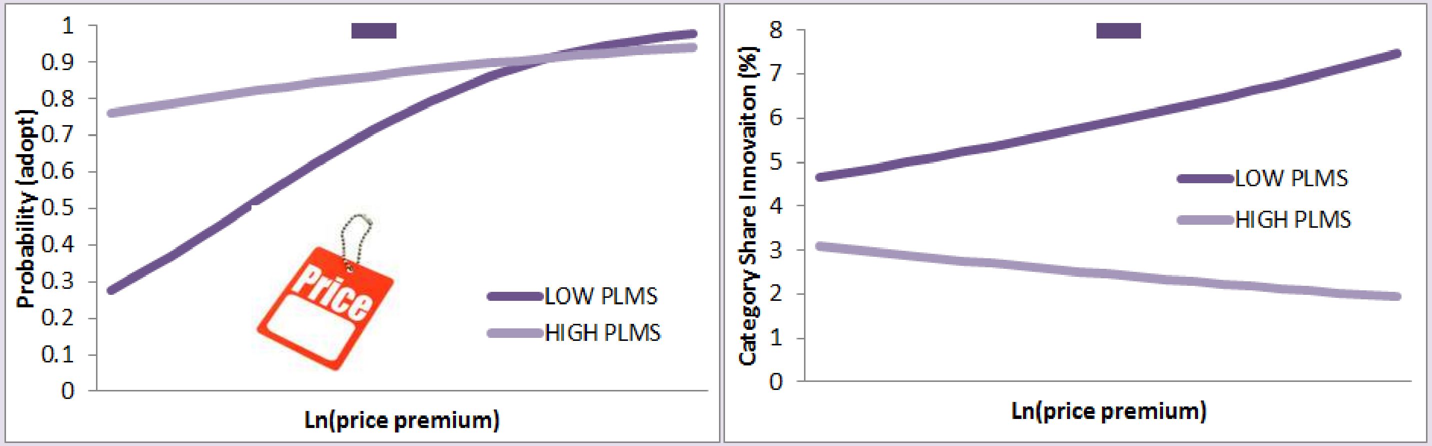
LOW = mean – 1 SD
HIGH = mean + 1 SD



Retail Context: PL Strength

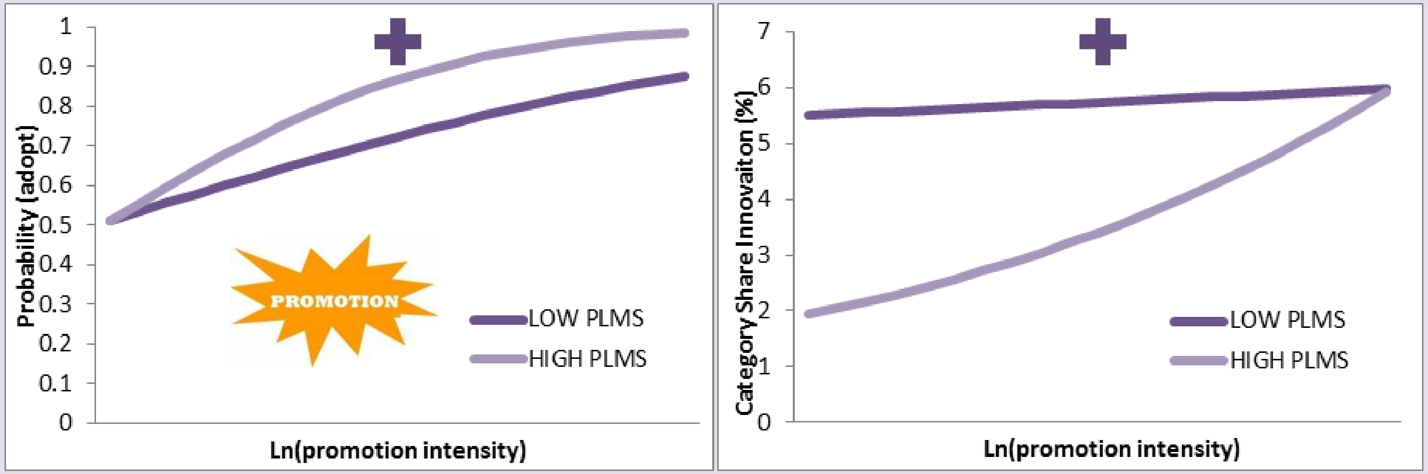
Private-label Strength (PLMS) x Price Premium

Retailer innovation adoption | Retailer innovation performance

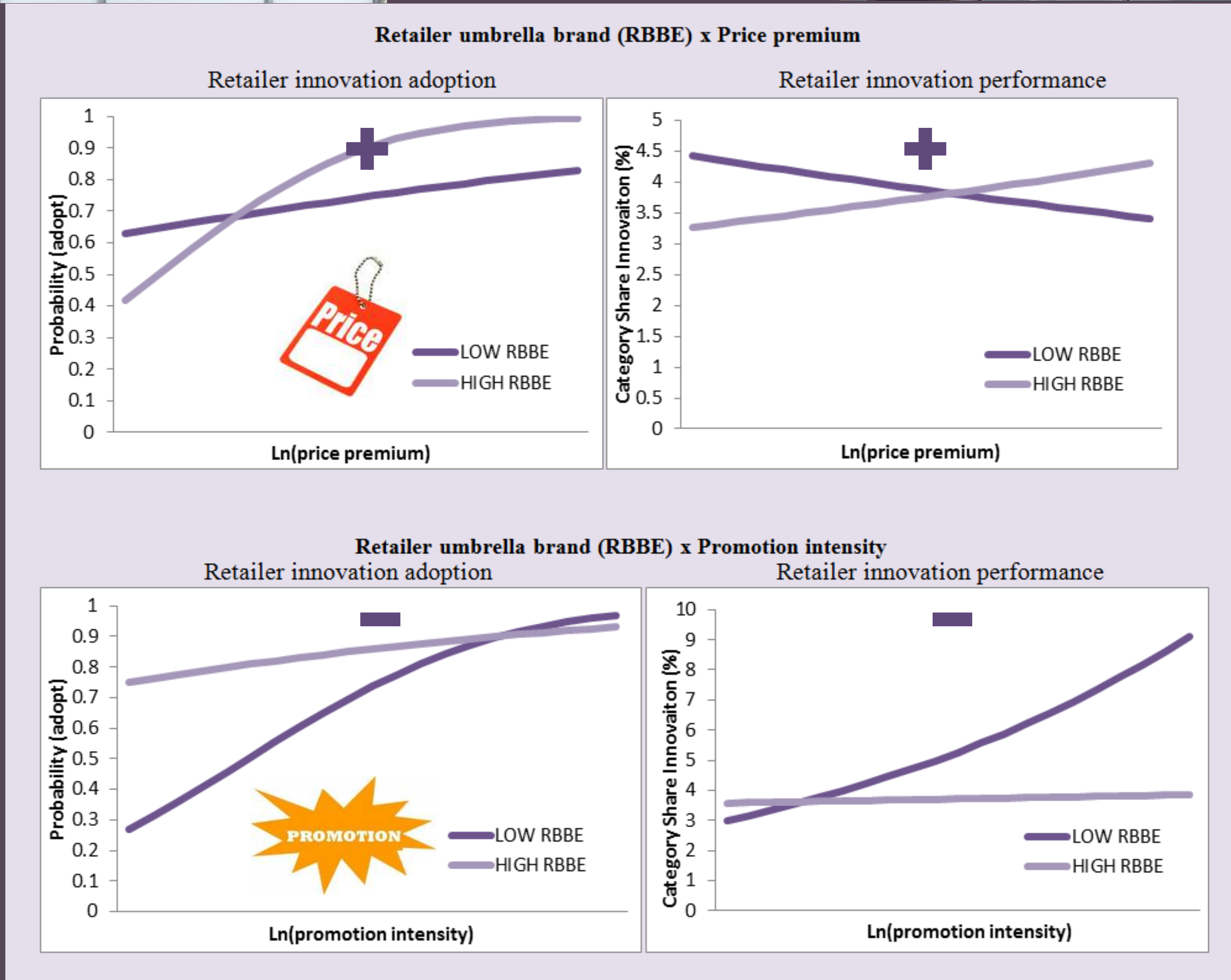


Private-label Strength (PLMS) x Promotion Intensity

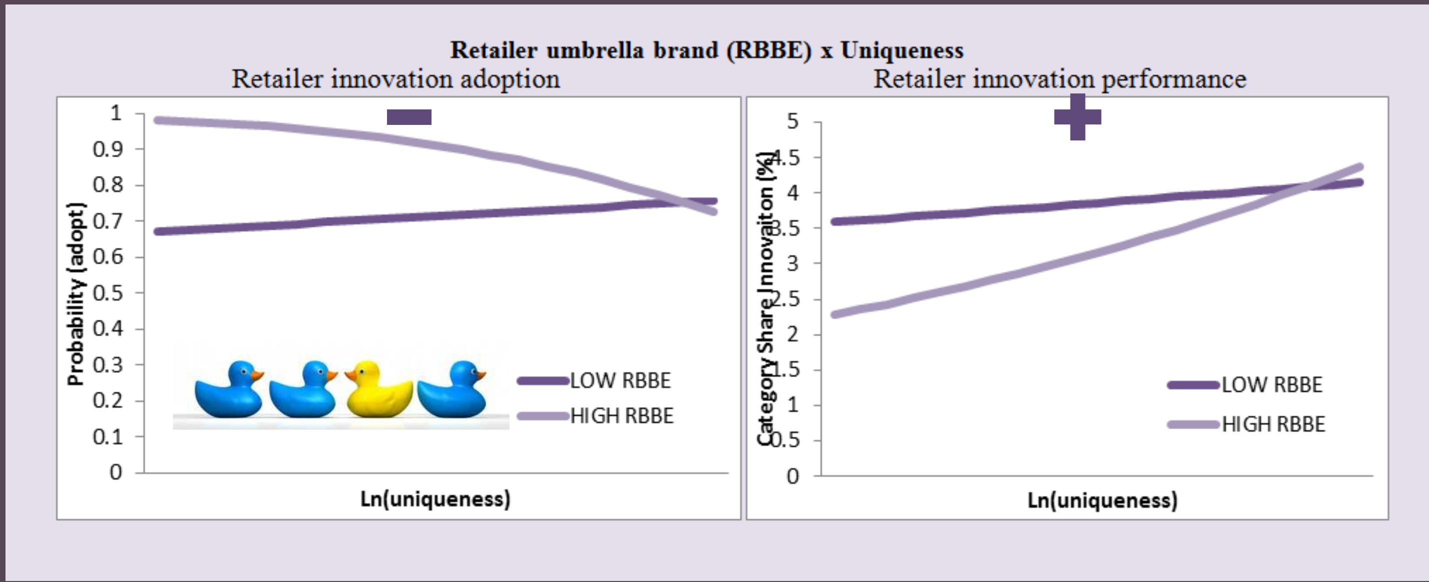
Retailer innovation adoption | Retailer innovation performance



Retail context: Retail-Banner Brand Equity



Retail context: Retail-Banner Brand Equity



Key Take-aways

The retailer plays a key role in innovation success through the interplay between retailer controlled factors:

- Retailer’s shopper marketing for the innovation
- Retailer category characteristics
- Retailer umbrella brand

Implications for Retailers

Adapt your shopper marketing in function of the retail context

(i) If you are a high (*low*) ***equity*** retailer

Set innovation price high (*low*)

Promote innovation less *(more)* frequently

Include innovation that are more (*less*) unique

(ii) If your ***private-label*** in the category is strong (weak):

Set innovation price low (high)

Promote innovation more (less) frequently

(iii) If your category is ***highly proliferated***

Include innovation that are more unique

(i) Act quickly (!)

Retailer and Category-specific Effectiveness of the Shopper-marketing Instruments in terms of Innovation Performance

Retailer	# categories with innovation adoption[a]	Price: Average combined effect[b]		Price: - (%)	Price: + (%)	Promotion: Average combined effect		Promotion: - (%)	Promotion: + (%)	Uniqueness: Average combined effect		Uniqueness: - (%)	Uniqueness: + (%)
Aldi	18	-.407	**	100%[c]	0%	4.345	***	0%	100%	.444		11%	28%
Asda	20	.079	*	5%	65%	-.090		20%	15%	.596	***	0%	85%
Iceland	14	.127		0%	71%	.501		0%	21%	.880		0%	14%
Lidl	14	-.399	**	100%	0%	4.402	***	0%	100%	.497		0%	7%
Morrisons	21	.064		5%	38%	.397		0%	57%	.394	***	0%	67%
Netto	14	-.093		43%	0%	2.516	***	0%	100%	-.225		14%	0%
Sainsbury's	20	.135	**	0%	85%	-.620		40%	10%	.676	***	0%	90%
Somerfield	21	-.015		29%	0%	1.727	***	0%	100%	.290		10%	0%
Tesco	21	.154	**	0%	67%	-1.024	**	57%	0%	.725	***	0%	81%
Tesco Express	19	.040		21%	37%	.791	**	0%	74%	.448	*	0%	42%
Tesco Extra	21	.051		10%	33%	.381		0%	43%	.374	**	0%	62%
Tesco Metro	19	.001		32%	5%	1.054	***	0%	95%	.362	**	0%	47%
Waitrose	19	.049		16%	42%	.820	**	0%	58%	.418	*	0%	37%

*** p<.01, ** p<.05, * p<.10 (two-sided).

[a] Total number of categories out of the 21 categories in our sample where the retailer accepted at least one innovation from our sample.

[b] The combined effect is derived as the sum of the main effect and the various moderated effects. The latter are computed using that retailer's observed RBBE value and the retailer-specific mean values (across all accepted innovations) for the (log-transformed) retailer-category drivers. Significance is determined using the Delta rule.

[c] In 100% of the adopted categories (18 out of 18) at Aldi, price has a negative effect (two sided p-value <.20), based on the combined effect (cf. footnote b above), but now using the category-specific mean values for the respective (log-transformed) category drivers for each retailer.

Implications for Manufacturers

Innovation acceptance more easy

(i) in categories with more established offerings;

(ii) at high-RBBE retailers;

(iii) when manufacturer is more powerful

(iv) when launched under a strong brand name

(v) for relatively higher priced innovations, especially at high RBBE retailers and in categories with a weaker PL

(vi) for relatively more promoted innovations, especially at low RBBE retailers and in categories with a stronger PL

Retailer and Category-specific Effectiveness of the Shopper-marketing Instruments in terms of Retailer Acceptance

Retailer	# categories offered by retailer [a]	Price				Promotion				Uniqueness			
		Average combined effect[b]		- (%)	+ (%)	Average combined effect		- (%)	+ (%)	Average combined effect		- (%)	+ (%)
Aldi	21	-.188		48%[c]	5%	16.628	***	0%	100%	-.454		57%	0%
Asda	21	.902	***	0%	100%	3.614	**	0%	81%	-.756	**	71%	0%
Iceland	20	.532	***	0%	95%	7.396	***	0%	100%	-1.654	***	100%	0%
Lidl	21	-.148		57%	10%	15.052	***	0%	100%	-1.323	***	95%	0%
Morrisons	21	.709	***	0%	100%	6.528	***	0%	100%	-.232		52%	5%
Netto	20	.022		25%	0%	14.987	***	0%	100%	.178		20%	25%
Sainsbury's	21	1.033	***	0%	100%	1.832		0%	38%	-.966	**	76%	0%
Somerfield	21	.257		0%	57%	12.681	***	0%	100%	.347		29%	38%
Tesco	21	1.185	***	0%	100%	-.359		0%	5%	-1.266	**	100%	0%
Tesco Express	21	.576	***	0%	95%	7.687	***	0%	100%	-.556	*	67%	0%
Tesco Extra	21	.741	***	0%	100%	6.003	***	0%	100%	-.309		57%	0%
Tesco Metro	21	.516	***	0%	90%	8.517	***	0%	100%	-.433		57%	5%
Waitrose	21	.544	***	0%	100%	8.482	***	0%	100%	-.259		57%	14%

*** $p<.01$, ** $p<.05$, * $p<.10$ (two-sided).

[a] Total number of categories out of the 21 categories in our sample that are offered by the retailer.

[b] The combined effect is derived as the sum of the main-effect parameter and the various moderated effects. The latter are computed using that retailer's observed RBBE value and the retailer-specific mean values (across all innovations) for the (log-transformed) retailer-category drivers. Significance is determined using the Delta rule.

[c] In 48% of the adopted categories (10 out of 21) at Aldi, price has a negative effect (two sided p-value <.20), based on the combined effect (cf. footnote b above), but now using the category-specific mean values for the respective (log-transformed) category drivers for each retailer.

In sum

Retailers and manufacturers have to tailor their shopper-marketing activities in function of

- Retail-banner's brand equity
- Category composition at the retailer
  (i.e. private label strength & category proliferation)